

SPECIMENS =

GEOMETRICAL MOSAIC.

MANYFACTURED BY

MAN & Co

OF

BENTHALL, NEAR BROSELEY,

SHROPSHIRE.

FROM PATTERNS
CHIEFLY
DESIGNED & ARRANGED
BY

M. DIGBY WYATT.

ARCHITECT.

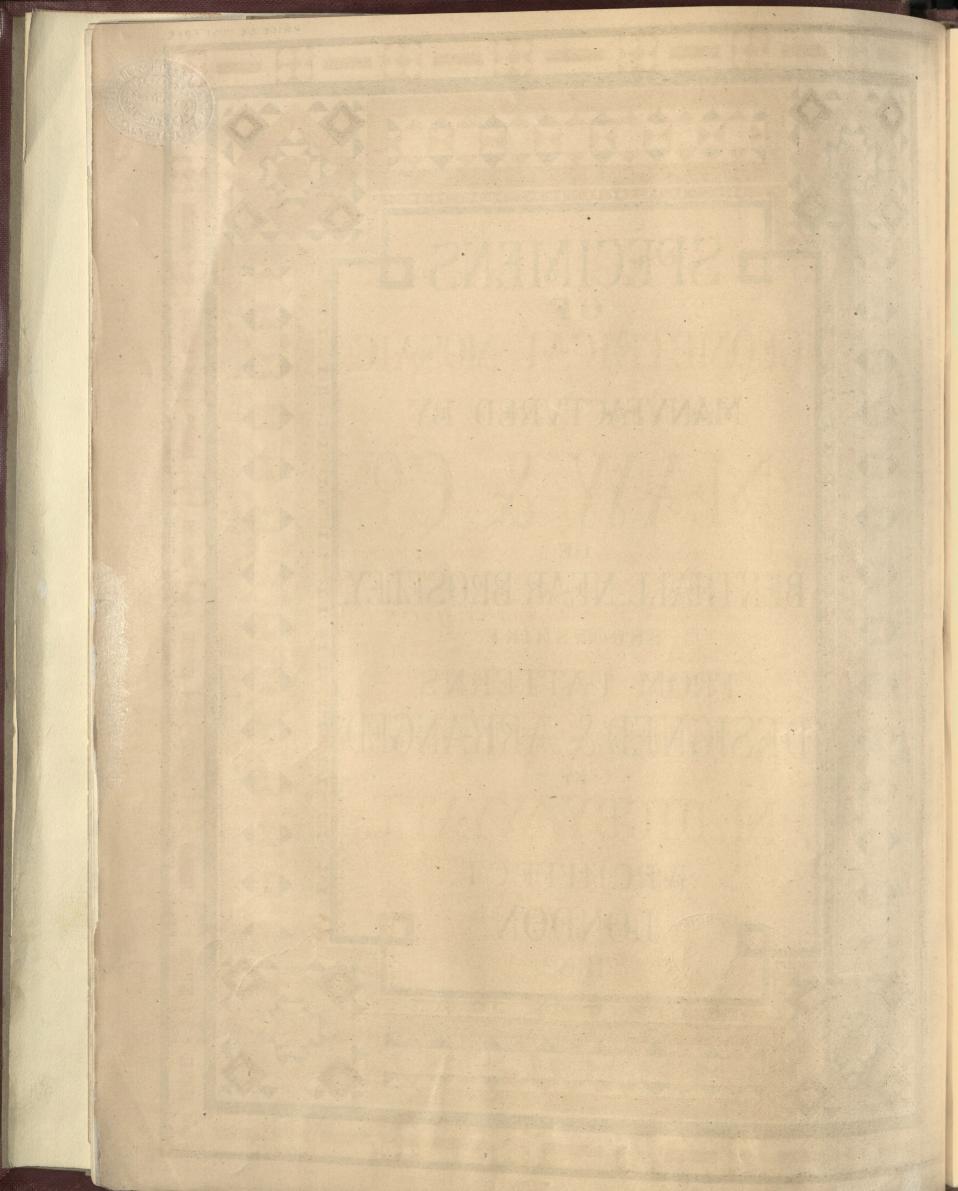


LONDON.

1862

LONDON AGENTS

for the Sale and Laying of Maw & Co.'s Pavements, W. B. SIMPSON & SONS, 456, WEST STRAND, W.C.





** The Prize Medal of the International Exhibition of 1862 was awarded to MAW AND Co. for Excellence of Manufacture of Encaustic Tiles, Mosaic, Majolica Tiles, &c.

MAW AND Co's. GEOMETRICAL MOSAICS.



F the many attempts to meet modern architectural requirements, in the production of a paving material capable of combining appropriate defign with extreme hardness and consequent durability, few have hitherto succeeded so as to bear comparison with the finest specimens of ancient Tesselated work, or with its more useful medieval representative the Geometrical Mosaic, known as Opus Alexandrinum, of which numerous interesting examples are still extant, not only as pavements, but on the interior and exterior surfaces of walls in Panels, Tablets,

Pilasters, Plinths, Pedestals, String-courses, Friezes, &c.; on edifices bearing date from the time of Constantine the Great down to a comparatively modern period. The great beauty of such fragmentary illustrations of the art as time has spared leads us to regret those technical impersections which have induced the destruction of an infinite number of graceful examples: it is, on this account, truly unfortunate that the materials generally composing them were either too soft to wear or too hard to work into Tesser of correct form.

By the application of modern science, both chemical and mechanical, to peculiarly suitable mineral materials, MAW and Co. are not only enabled to produce Tesser free from either of the ancient imperfections of softness of texture or inaccuracy of outline, but manufacture forms which the materials of the ancient pavements rendered almost unattainable. The Curvilinear Tesser, such as are used in the composition of designs on Plates VI. and VIII., are produced at the same prices as those of plain squares, and are available for the formation of pavements which could not be executed in Encaustic Tiles at less than two or three times their cost.

The almost endless variety of effective and pleasing combinations characteristic of the various styles of architecture in modern use, of which these Geometrical Tesser and Tiles are susceptible, is sufficiently indicated by the accompanying specimens, designed expressly for Maw and Co. chiefly by Mr. M. DIGBY WYATT, whose name is well known to be peculiarly connected with this branch of architectural art, especially by his valuable work on "The Geometrical Mosaics of the Middle Ages," from which we extract the following passage, as expressive in sew words of the peculiar influence and value of these Geometrical forms:—

"Turning our attention to the structure and condition of ancient conventional, or purely architectonic design as applied to Mosaic work, and examining the relations substisting between its lines and colours and those of the adjacent architectural members, we cannot but observe the skill with which they have been both arranged and contrasted. Thus the minute and frequently recurring patterns met with at Pompeii, in the cubicula and in the smaller chambers, were adapted to give scale to the rooms, and, from their strictly regular and geometrical character, to cause the eye to dwell with increased pleasure on the slowing and playful forms of the paintings executed upon the walls; in much the same way the rectilinear lines of the pavement of the Pantheon enhance the beauty of the graceful curves of the dome and its lacunariæ."

With regard to the question of cost and economy, it must be borne in mind that Maw and Co.'s Pavements are as durable as the building of which they form in every respect a consistent portion.

They are more easily kept clean than any other kind of floor, and entail no subsequent expense for those perishable ornamental and protective coverings the frequent renewal of which in a few years involves an outlay exceeding the price of a choice specimen of Mosaic.

** Sketches of these Designs, variously combined and modified, (or the Designs of architects and others,) adapted to any given measurements of Halls, Porches, Porticos, Passages, Conservatories, Footpaces, Gangways, Verandahs, Balconies, Hearths; exterior and interior Wall-Panels, Tablets, Plinths, Skirtings, Pedestals, Pilasters, String-courses, Risers of Steps, Friezes, etc. supplied without charge and accompanied by estimates. Maw and Co. will also be happy to supply special Designs (by architects of great experience in this branch of art) of the more elaborate character of those represented in Plates V. VII. and IX., for which an extra charge will be made. The additional expense in such a case is always well repaid by having a pavement designed with special reference to the other features of the building. When plans of spaces to be tiled are sent, the exact dimensions marked in signers are preferable to a "scale," and careful particulars are requested respecting the dimensions and position of door-entrances and recesses that have to be paved.

Samples of the Tiles and Tesseræ forwarded on application.

As nearly the whole of the Defigns are kept in stock, orders can generally be executed at a few days' notice.

A Circular, containing the price of each Design, including laying, package, cement, and carriage to the principal towns in the kingdom, will be forwarded on application. Also, Maw and Co.'s Book of Encaustic Tile and Gothic Pavement Designs.

NET CASH PRICES AT THE WORKS, BENTHALL.

PAVEMENTS OF HALF AN INCH SUBSTANCE.

Red, Black, Buff, and Chocolate, for fuch Defigns as Nos. 16, 24, 25 35. 9d. a fquare yard. Ditto with Grey, Fawn, or Creem colours.
Ditto with White
Prices of Encaustic tiles and very small Tesseræ, composing the finer Mosaics, will be forwarded on application.

Red, Black, and Chocolate Pavements, of one inch substance, 8s. a yard. Buff Tiles, of one inch substance 9s. a yard.

Package extra of $\frac{1}{2}$ inch thick tiles 6d. a yard, inch thick 8d., from which no allowance can be made for returned packages, as they cannot be used more than once for the conveyance of Tiles.

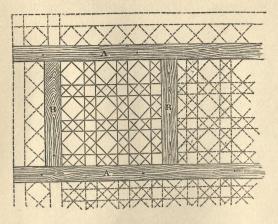
N. B. By fubflituting the cheaper colours (viz. red, buff, black, and chocolate) for cream colour, white, and grey, the more expensive patterns can be reduced in price to our lower rates.

Information as to cost of carriage from the Works to various parts of the kingdom, (which ranges, with some few exceptions, from 6d. to 1s. per square yard of 1'' tiles,) can be had on application.

DIRECTIONS FOR LAYING THE PAVEMENTS.

FIG. I.

FIG. II.



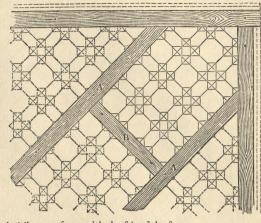




Fig. I. represents the operation of laying a portion of pavement, on which the principal lines are square with the fide of the space.

Fig. II. is part of a pavement placed diagonally. The darker lines show the part under operation. The dotted lines indicate the position to be occupied by remainder of pavement.

If the foundation be not sufficiently solid, lay an even layer of bricks, or form as evenly as possible a $2\frac{\tau}{2}$ inch bed of concrete of quicklime and gravel, and bring it to a perfectly level surface by a thin coat of cement, allowing about $\frac{3}{8}$ ths of an inch more than the thickness of the tiles for the cement to be used in embedding them. The introduction of lumps of unstacked lime or limerubbish in the concrete should be carefully avoided.

Wood floors in upper stories may be readily replaced with Mosaic, the foundation being prepared by nailing fillets to the joists at three inches from their upper surface, and the old floor boards sawn into short lengths and sitted in between the joists upon the fillets. Concrete may then be filled in slush with the upper sace of the joists, and saced with the coat of cement above mentioned. The tiles and cement will occupy about the same space as the floorboards they replace.

After carefully marking out the position of the several parts of the design, which should be previously ascertained by laying out a portion of the tiles (as borders, outline of general pattern, &c.), in chalk lines on the cement surface of foundation, the part of the space first intended to be laid should be included by two strips of wood, or guides, A A, about four inches wide, nailed down to the cement bed, of exactly the thickness of the tiles and cement used in bedding them. The

cement bed, of exactly the thickness of the tiles and cement died in bedding them. The cement having been fpread of the right thickness within this space, and levelled by a piece of wood thus,* the tiles, (after having been thoroughly soaked in water,) may be placed upon it,

AND BEATEN DOWN TO THE LEVEL OF THE GUIDES, UNDER A FLAT PIECE OF WOOD, WITH



A MASON'S MALLET, OR HAMMER, THE JOINTS BEING AT THE SAME TIME CAREFULLY REGULATED WITH A SMALL TROWEL. BY THIS PROCESS THE WHOLE OF THE TILES WILL BE BROUGHT TO A PERFECTLY EVEN SURFACE, AND THOROUGHLY CONSOLIDATED WITH THE CEMENT, WHICH THE BEATING DOWN REGULARLY DISTRIBUTES UNDER THEM, COUNTERACTING ANY SLIGHT VARIATION IN THEIR SUBSTANCE BY DEPRESSING THE THICKER TILES AND FLOATING UP, ON THE CEMENT SO DISPLACED, THOSE THAT MAY BE TOO LOW. The evenness of the surface should be occasionally tested with a mason's straight-edge, of sufficient length to bear on the guides.

The first piece of pavement having been completed, one of the wood strips can be dispensed with, as the tiles already laid will serve as a guide for one end of the straight-edge in bringing the subsequent portions of pavement to an even surface.

The use of small wood strips BB, placed at right angles to the guides AA, and corresponding with the other lines of pavement, will be found very convenient in adjusting and bringing the more elaborate designs to an even surface.

The workman will have to use his discretion in determining on the portion of the pavement it will be most convenient to commence upon. In regularly formed spaces it is generally found desirable to begin by laying the border along two adjacent sides, which, in conjunction with the moveable wooden strips, A A and B B, will serve as a guide in bringing the remainder of the pavement to a level surface.

The foundation should be kept thoroughly wet whilst the pavement is being laid.

Either Lias, Portland, or Roman cement of good quality may be used, but Lias is preferable, and may be mixed with about one third of fine sharp sand. Half a bushel of cement is sufficient for a square yard, for facing the foundation and bedding the tiles.

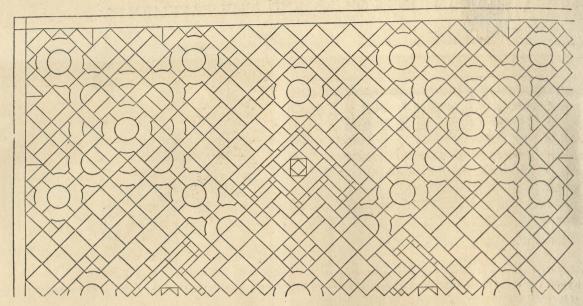
When the bedding is sufficiently hardened, mix some pure cement with water, to the consistence of cream, to run into the joints, taking care that what remains on the surface is wiped off before it dries hard. The cement for the joints may be artificially coloured with lamp black, red ochre, &c. to the tint of the adjacent tiles. Cement or dirt should not be allowed to harden on the surface during the laying.

When the tiles have to be cut, rule a line where the division is to be made, and rest the back of the tile on the sharp edge of a stone, immediately under the line, along which bruise the surface with a hard chisel and the parts will easily separate, after which chip the back edge even.

It is recommended to remove the skirting-boards from the walls whilst the pavement is being laid. When replaced it should rest on the tiles. The trouble of cutting the outer tiles to fit against it will be avoided, and a much neater appearance produced than when the outer joint is visible.

It is of the utmost importance that the pavements should not be walked upon till the cement is properly hardened (which will take from four to fix days).

An occasional washing with fost soap and water gives increased brilliancy to the colours, and will remove the saline scum which arises from the cement for the first sew weeks after the tiles are laid. A little skim milk may be washed over the surface after it is thoroughly cleaned, and the supersuous moisture wiped off with a clean and dry cloth.



Explanation of Diagram of Geometrical Forms on page 5.

The Square, and its Subdivisions.

The Square, and its Subdivisions.

No. I (6" square), No. 2 (4\frac{1}{4}" square), No. 3 (3" square), No. 4 (2\frac{1}{8}" square), No. 5 (1\frac{1}{2}" square), are a regular series of squares inscribed within each other, and together with their diagonal halves, Nos. 7, 8, 9, 10, and 11, are constituent parts of nearly the whole of the Designs. No. 49 is the diagonal quarter of 1\frac{1}{2}" square, or diagonal half of 1\frac{1}{16}" square.

The inch square No. 6, its diagonal half No. 12, diagonal quarter No. 88, the half-inch square No. 76, its diagonal half No. 87, the three-quarter inch square No. 84, and its diagonal half No. 86, are used in composing the finer Mosaics, as the border of Design No. 1. Nos. 3, 4, 5, 6, 8, &c. these and the 2" square No. 43, 4" square No. 46, \$\frac{1}{12}"\$ square No. 77, \$\frac{1}{16}"\$ square No. 67, are all sizes independent of the series from 1 to 5. No. 77 is a \$\frac{1}{12}"\$ square inscribed within a 2" square, bearing the same relation to it that the \$2\frac{1}{8}"\$ square No. 4 does to the 3" square No. 3.

Nos. 44 and 50 are the diagonal half and quarter of 2" square; No. 50 being also the diagonal half of No. 77. The diagonal half of inch square No. 12 is also the diagonal quarter of No. 77. No. 80 is the diagonal half and No. 81 the diagonal quarter of the four inch square No. 46.

the four inch square No. 46.

The $I_{\frac{1}{10}}^{6}$ square No. 67, and the margin No. 66, 6" × $I_{\frac{1}{10}}^{6}$ " corresponding with it, form the grey borders surrounding the panels in Defign No. 17.

The 2" and 4" squares, in addition to being used in the borders of many of the Designs at the angles of the margins of their

respective widths, enter into the composition of the general patterns of Designs Nos. 1, 16, 24, 47, and 52.

No. 14 (6" × 3"), No. 18 (4\frac{1}{4}" × 2\frac{1}{8}"), No. 19 (3" × 1\frac{1}{2}"), No. 48 (2\frac{1}{8}" × 1\frac{1}{16}"), No. 83 (1\frac{1}{2}" × \frac{3}{4}"), and No. 47 (2" × 1"), are the rectangular halves of the squares Nos. 1, 2, 3, 4, 5, and 43. No. 18 is employed to form the bands of Designs No. 18 and 28; and No. 19 enters into the composition of Designs 7 and 23, and its longitudinal half (No. 53) 3" × 0\frac{3}{4}", occurs at the section of general pattern of Design No. 23 against border. No. 52 is 3" × 1".

Nos. 13, 14, 15, 16, and 17, are rectangular subdivisions of the 6" square, and form margins 1, 1\frac{1}{2}, 2, 3 and 4 inches in width. No. 85 is 4\frac{1}{4}" × 1\frac{5}{12}", or one-third of a 4\frac{1}{4}* square, bearing the same relation to it as the 6" × 2" does to the 6" × 6" square, and corresponds in width with the square No. 77.

corresponds in width with the square No. 77.

1/2. A square tefferæ and their diagonal halves are also manufactured in the formation of pictorial mosaics.

Other forms related to the Square.

The longer fides of the irregular octagon No. 23, and irregular hexagon No. 26, are 3 inches in length, and correspond with the fide of the square No. 3. The short sides are equal to \(\frac{1}{4}\) the diagonal of the 6" square, and fit on the \(2\frac{1}{8}\)" square No. 4. These forms and their halves, Nos. 27, 24, and 89, are used in the composition of Designs No. 27, 33, and 34.

The lozenge No. 25, and its half No. 82, occurring in design No. 13, do not enter into the following series; corresponding with the equilateral triangle, their sides sit the 2½ fquare No. 4, and their acute angles being exactly 45°, enables them to be associated with responding Tiles.

Of the other forms allied to the square, the figure No. 78, with $2\frac{1}{8}$ and $1\frac{1}{2}$ sides, enters into the composition of Design No. 32. The figures Nos. 20, 21, and 22, being inscribed within a $6^{\prime\prime} \times 6^{\prime\prime}$ square, are an extremely available form of triangle for affociating with rectangular tiles, as in the angle of Design No. 29. No 79 is a quadrilateral figure used at the point of junction of bands or borders 3 inches wide, meeting at an angle of 135°. Forms of the same proportions are manusactured with the long sides of $2\frac{1}{8}$, $4\frac{1}{4}$ and 6°, and are used at the points of junction of bands of their respective widths meeting at an angle of 135°.

The Equilateral Triangle, Regular Hexagon, and their Subdivisions.

The relative proportions of the various subdivisions of the regular hexagon (No. 28), with 3" fides, are rendered so obvious in Nos. 40, 41, and 42, form the narrow black bands round the hexagon in Design No. 26, their sides and ends measuring 3" and 1" respectively.

No. 39 is an equilateral triangle with fides equal to the perpendicular fection of a 3" equilateral triangle, and enters into the

composition of Design No. 15.

The equilateral triangle with $1\frac{1}{2}$ fides (No. 38), and its half, No. 51, are used in the general pattern of Design No. 23. The regular hexagon with $2\frac{1}{8}$ fides (No 68), and its subdivisions, Nos. 69, 70, 71, 72, 73, 74, and 75, form a series bearing the same relation to the $2\frac{1}{8}$ square No. 4, that the larger hexagon No. 28, and its subdivisions do to the 3" square No. 3.

The Curvilinear Forms

Have been defigned with special reference to their capability of being affociated with the other geometrical figures, and confist of two distinct series; the one including Nos 54 55 56 57 and 58 and the formula N two diffinct feries; the one including Nos. 54, 55, 56, 57, and 58, and the fecond, Nos. 59, 60, 61, 62, 63, 64, and 65; both of of a pavement composed of the second series in combination with right line forms, and the coloured Designs in Place VI. and VIII.

PAVEMENTS-DADOS-FRIEZES & GREEK-ROMAN-POMPEIAN-ITALIAN-

Nº1. PAVEMENT. Cutte hallere only 14/6 1. 4. Nº 56. PAVEMENT.

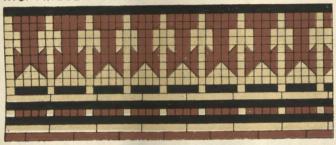


1/1 4.0

Estimale

Buda ar erlimat -

Nº3. FRIEZE OR BORDER



Nº 4. STRING COURSE OR PAVEMENT BORDER.



estundo

Nº 57. FRIEZE OR BORDER.

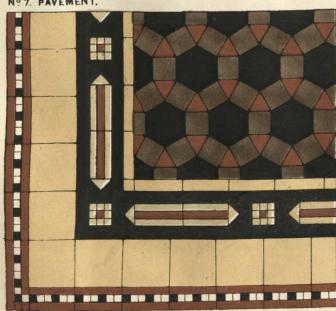


Nº 6. STRING COURSE OR PAVEMENT BORDER



dello

Nº 7. PAVEMENT.



Nº 58. PAVEMENT



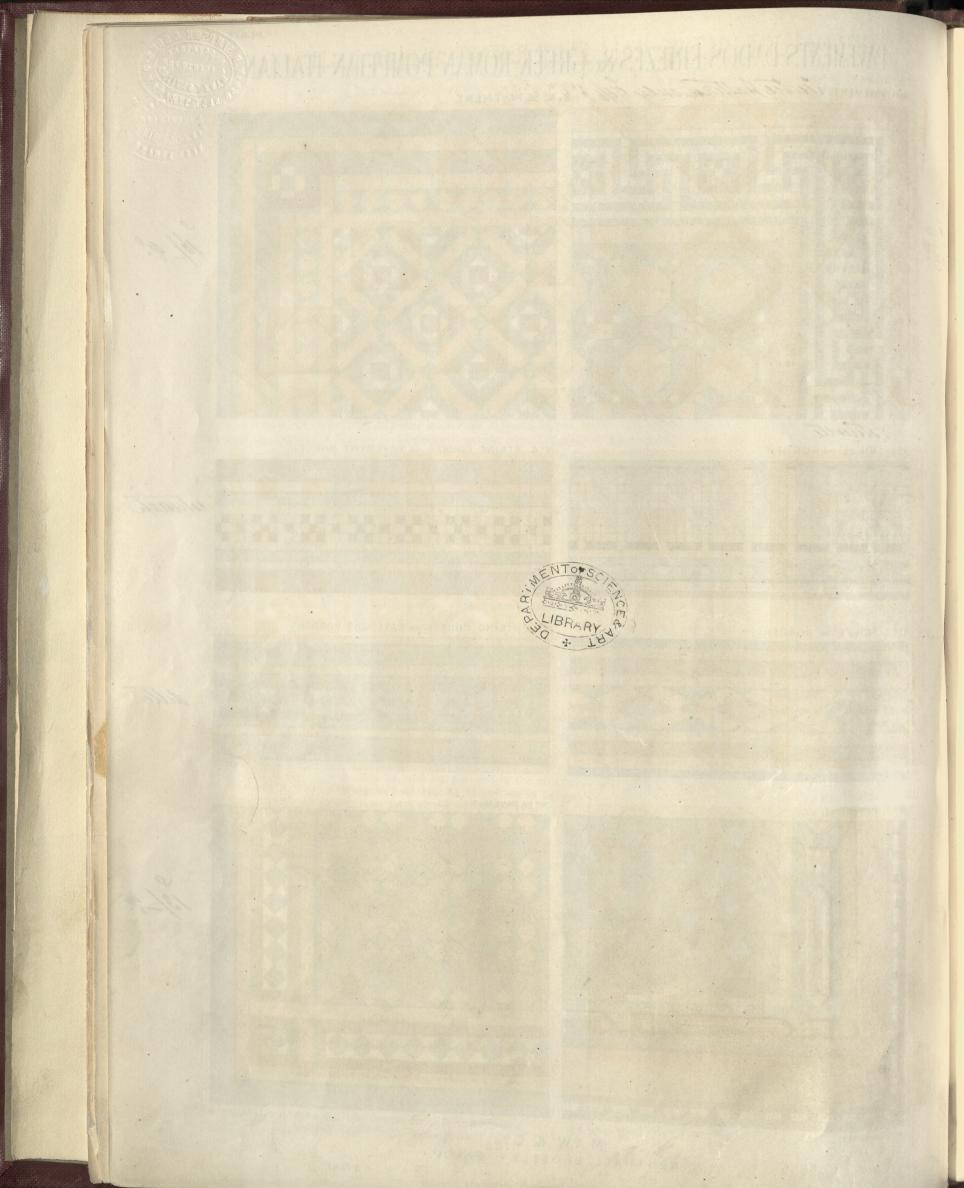
13/-40

DAY & SON, LITHES TO THE QUEEN

M. DIGBY WYATT, MAW & C?

BENTHALL, BROSELEY, SALOP.

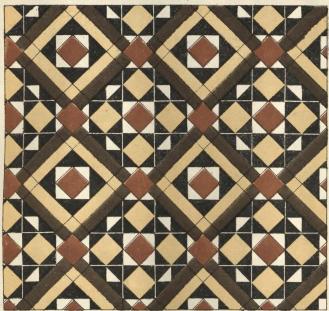
SCALE OF 12 9 6 3 0 Benthall, Broseley, Published by Maw & Co. 3 FEET

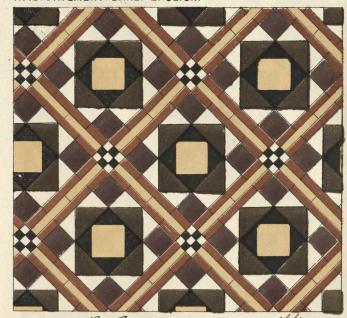


PAVEMENTS FOOT-PACES & WALL ENRICHMENTS MEDIÆVAL & TUDOR;

Nº 9. PAVEMENT OR WALL DIAPER, DECORATED.

Nº 10. PAVEMENT. EARLY ENGLISH.





Nº 59. FOOT PACE

Nº 12. PANEL DECORATED.

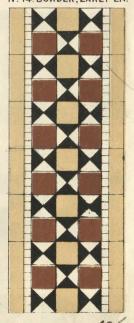
Nº13. BORDER DECORATED

Nº 14. BORDER, EARLY EN."



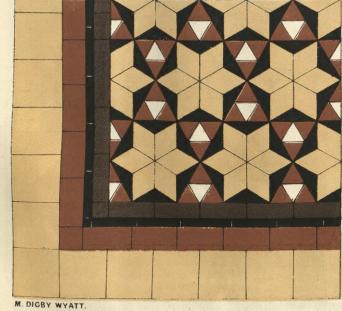






Nº15. PAVEMENT DECORATED.

14/6





DAYESON, LITHE TO THE QUEEN

MAW & C? BROSELEY, SHROPSHIRE.

SCALE OF 12 9 6 3 0

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Benthall, Broseley. Published by Maw & C?

MUSINITS FOOT PACES & WALL EXPECTIMENTS MEDIFINAL STUDIONS.







HATUSING BERRENTIES STATE

PAVEMENTS FRIEZES & ITALIAN RENAISSANCE & ELIZABETHAN
Nº 17 PAVEMENT, SQUARE PANEL ENGLOSURE, ITALIAN
Nº 18. PAVEMENT OR DADO: ITALIAN. ******* Nº 19. PAVEMENT OR WALL DECORATION ELIZABETHAN Nº 20. FRIEZE. RENAISSANCE. 19 21 BORDER OR STRINGCOURSE Nº 22. DIAPER FOR PAVEMENT OR WALL Nº 23 PAVEMENT RENAISSANCE. M. DIGBY WYATT. DAY & SON, LETHING TO THE QUEEN MAW & C? BROSELEY SHROPSHIRE

Benthall Broseley Published by Maw & C?



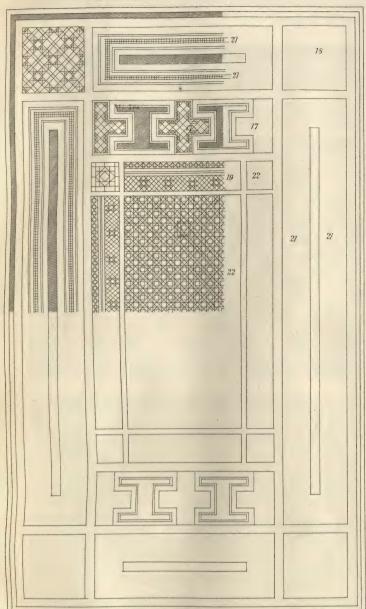


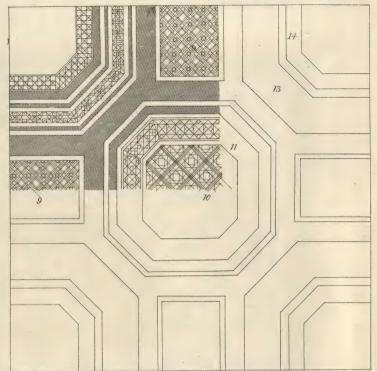
BROSELEY SHROPSHIRE



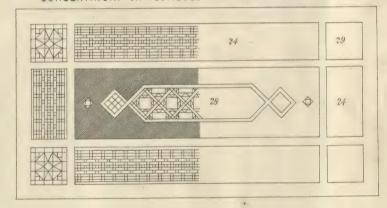
RENAISSANCE OR ITALIAN HALL.



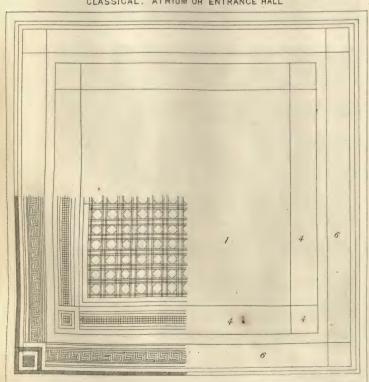




CONSERVATORY OR VESTIBULE IN A MODERN HOUSE OR VILLA.



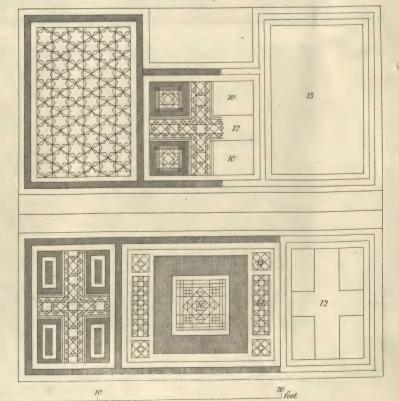
CLASSICAL. ATRIUM OR ENTRANCE HALL



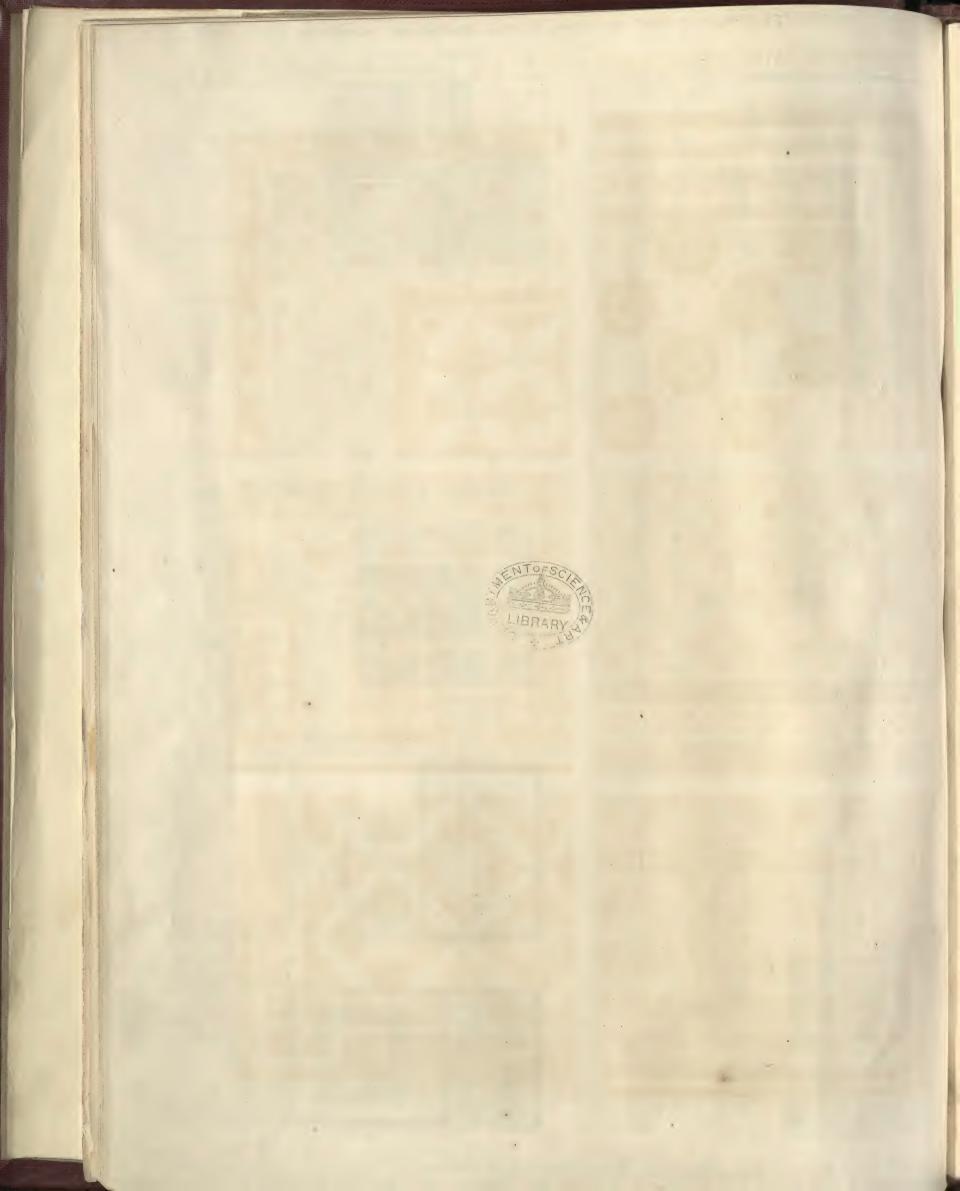
Scale of

W. Lighy Myatt.

MEDIÆVAL ARRANGEMENT.



The figures refer to the numbers of the patterns in the four preceding pages.



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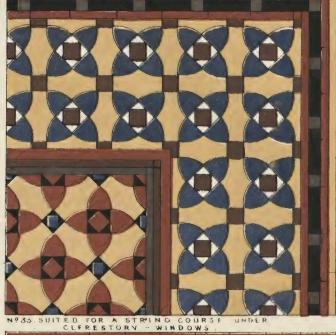
RICH-PAVEMENTS & DIAPERS (INTRODUCING BLUE) FOR MEDIAVAL STRUCTURES.

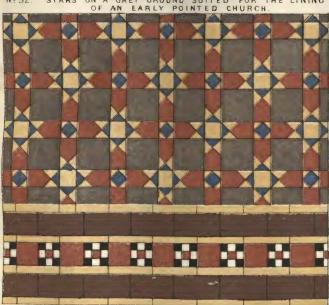
Nº61. PAVEMENT

Nº31 MIDDLE POINTED



STARS ON A GREY GROUND SUITED FOR THE LINING OF AN EARLY POINTED CHURCH.





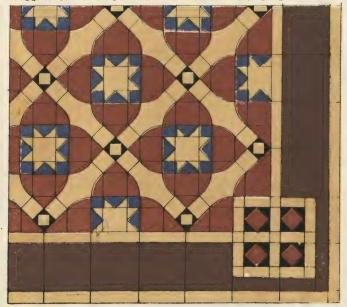
PAVEMENT OR DADO FOR A RICH PERPENDICULAR CHANCEL



Nº 35. RICH - MIDDLE - POINTED - ARCHITECTURE



M DIGBY WYATT



DAY & SON, LITHE TO THE QUEEN

MAW & C?

BENTHALL BROSELEY, SALOP.

Scale of 12 9 6 3 0 3 fart



BOLD PATTERNS.OF. SIMPLE. CONSTRUCTION. FOR. LARGE. SPACES.



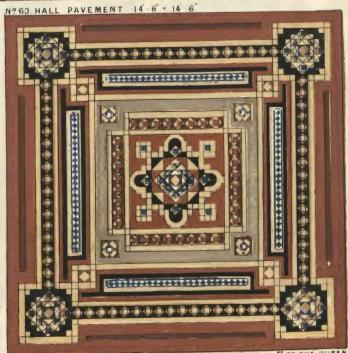








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DAY & SON LITH " TO THE QUEEN



RICH-PAYEMENTS INTRODUCING CURVILINEAR FORMS. REGISTERED BY MAW & CO. ENT SUITED TO ANY STYLE EXCEPT CLASSIC. NO 43. PAVEMENT ANY STYLE EXCEPT CLASSIC.



MAW & C?

BENTHALL BROSELEY, SALOP

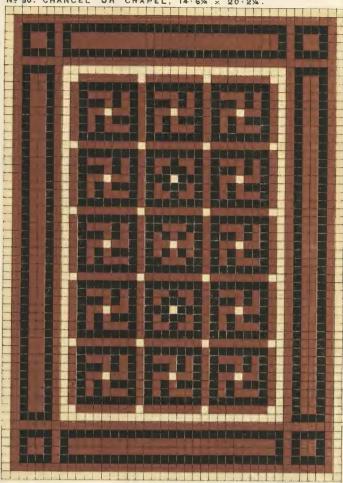
Scale of #2 9 6 3 0 3 Feet



PAYEMENTS OF BOLD DESIGNAND MODERATE COST ADAPTED FOR LARGE SURFACES.

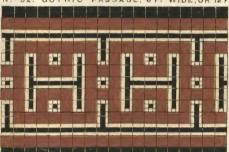


Nº 50. CHANCEL OR CHAPEL, 14.64 x 20.24.





Nº 52. GOTHIC PASSAGE, 6 FT WIDE





Nº 84. CHANCELS IN CLEAR OF STALLS OR SEATS, 14-6 × 14-6.



Nº 55. CHANCELS IN CLEAR OF STALLS. 14-6



DAY & SON, LITHES TO THE QUEEN





MAW AND CO.'S MAJOLICA TILES,

For Fire Places, Wall Linings, &c.



BENTHALL WORKS, BROSELEY, SHROPSHIRE.

LEIGHTON BROTHERS.

MAW AND CO'S ENCAUSTIC TILES.

Three feet square.

Group of thirty-six Tiles.

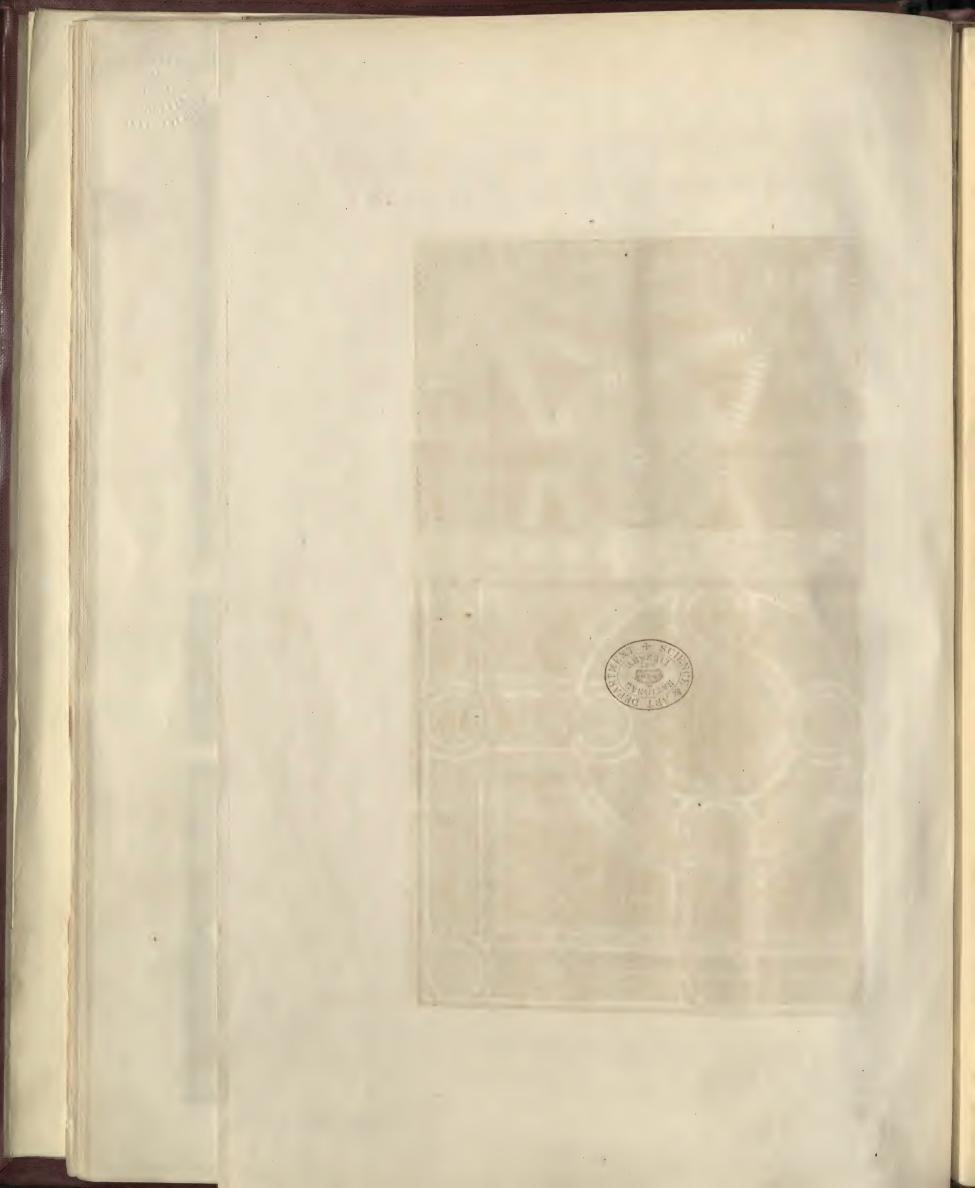


Four feet square.

Group of sixty-four 6 inch Tiles.



BENTHALL WORKS, BROSELEY, SHROPSHIRE.



MAW AND CO.'S ENCAUSTIC AND OTHER TILES.



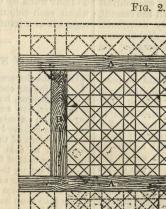
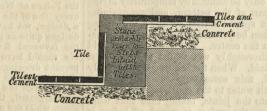


Fig. 3.



Fig. 4.



MAW AND CO.'S ENCAUSTIC AND OTHER TILES.

THE subject of neglected and lost arts is a wide field for even the most industrious and enthusiastic to enter upon, but there is one revived branch of art whose progress has been so marked, and withal so rapid, as to claim more than an ordinary share of attention. When we speak of ornamental tiles we now make use of what is almost a household word, and yet it is not more than thirty years ago that a tile meant simply a roofing tile, and the most imaginative fancy could connect the word with nothing more ornamental than the blue and white lining to the cool dairy, with the history of the prodigal son fairly set forth, or perchance the old Dutch fire-place with Æsop's falles most morally rendered. The revival of Cothic art of the the interest in that are Gothic art, or rather the interest in that art which was suddenly awakened, brought to light many unsuspected qualities and conditions of artificers. Among other things it has been discovered that the British workman of the nineteenth century can actually do a bit of metal work without completely spoiling it, and instances have not been wanting of stone masons who have trodden very closely on the heals of the professed analysis. The exteen in hasons who have trouden very the esteem in heels of the professed sculptor. The esteem in which Gothic art came to be held, at a leap almost, stimulated the revival of all arts which almost, stimulated the revival of thirteenth had prospered during the favoured thirteenth and fourteenth centuries, and of these the art of tile making was not the least conspicuous. The interest which attended several discoveries of tile pavement, notably at Chertsey, induced more than one manufacturer to endeavour to supply the market with something more or less resembling the old English tile. The experiments were tedious and costly, and many disappointments of necessity occurred before the first merchantable tile appeared in the market. Perhaps the greatest difficulty lay in the market. the unequal shrinkage of the differently coloured portions of the tile. At one time, indeed, it appeared doubtful whether a good tile in two recommendations. in two or more colours could be produced, but perseverance was eventually rewarded, and the manufacturer at length succeeded in turning out a tile of coherent material and good In commencing the arduous task of so compounding the various bodies or coloured clays as to give them an equal amount of shrinkage and thus fit there to be combined shrinkage, and thus fit them to be combined in the same tile, manufacturers have been compelled to choose between two courses.

The work contains, also, practical directions is mason's hammer or mallet, the joints being at mason's hammer or mallet, the joints being at mason's hammer or mallet, the joints being at the same tile, same time carefully regulated with a small the same time carefully regu

They might either adopt such bodies as with less shrinkage in the process of drying and firing give when finished a softer material as regards resistance to wear, or they might use such as have greater shrinkage, but which present a hard and vitreous quality when fired The latter course involves vastly greater risk of loss in the process of manufacture, but we understand that it has been adopted by Messrs. Maw and Co. with the object of producing pavements which shall not only have a beautiful appearance when new, but also be able to bear the traffic of centuries uninjured. Some of the bodies thus perfected have resulted from many hundred experiments, each involving several tedious chemical and mechanical processes. We have received a handsome book llustrating the tiles of Messrs. Maw and Co., Brosely, the designs being by Messrs. M. Digby Wyatt, G. E. Street, G. Goldie, H. B. Garling, J. P. Seddon, and others. That the designs are of general excellence may be presumed from the well-known ability of the continuous whose well-known ability of the gentlemen whose names appear on the title page, and we regret that we are able to make but a limited selec-tion. A mere description of a tiled pavement can convey butan inadequate idea of its pattern; it will be enough to say that the designs are it will be enough to say that the designs are of great variety, and suitable to any circumstances. Some designers of tiled pavements hold that the white should be produced by the use of marble. This much is, however, certain, that wherever white marble has been judiciously used in connection with tiles the effect has been very satisfactory. The designs which appear to be best balanced in colour are somewhat difficult of selection, and must be chosen with reference to the purpose which they may have to serve. There are several patterns in black, red, and buff that are particularly pleas-Plate 26 contains several good examples. The Gothic tiles in two colours are of good mediæval design and great variety of pattern, but nothing short of an inspection of the work but nothing short of an inspection of the work will give a correct idea of their merits. The Pompeian tiles are of great brilliancy. A few examples of encaustic tiles, and also of glazed tiles for wall linings, dadoes, friezes, string courses, fire-places, &c., we have reproduced from the work so as to give our readers some idea of the extent and variety of the designs.

The work contains, also, practical directions

tions for Laying the Pavements" will be welcome in many quarters. After giving some hints on the preparation of concrete as a foundation, we are told that "the introduction of lumps of unslaked lime should be carefully avoided, as they are liable to swell and displace the pavement." Then follow some directions for laying the pavement on upper floors. "The floor boards sawn into short lengths and fitted in between the joists upon the fillets, concrete may then be filled in flush with the upper face of the joists and faced with a coat of cement. Tiles should on no account be laid on boarded floors without no account be laid on boarded floors without the intervention of concrete, as they are cer-tain to become loose within a few weeks of being laid." Of the cements in which the tiles are bedded we are told that "either lias, Portland, or Roman cement, of good quality, may be used, but lias is preferable, and may be mixed with about one-third of good sharp sand. No cement that is very quick in setting is suitable, as it does not afford sufficient time for the proper adjustment of the tile. Half a bushel of cement to a square yard is sufficient for facing the foundation and bedding the tiles." Then certain a square the state of the sufficient for facing the foundation and bedding the tiles." tain sand containing bituminous particles, by which the tiles might be stained, is con-demned, and the actual process of laying the tiles described. "After carefully marking out the position of the several parts of the design (which should be previously ascertained by laying out temporarily a part of the pave-ment) in chalk lines on the cement surface of the foundation, the part of the space first in-tended to be laid should be included by strips of wood, or guides (AA and BB, figs. 1 and 2) about 4in. wide, fixed with nails on the foundation, and of exactly the thickness of the tiles and the cement used in bedding them. The cement having been spread of the right thickness within this space, and levelled with a piece of wood, thus-



the tiles, after having been thoroughly soaked in water, may be placed upon it, and beaten down to the level of the guides, under a flat piece of wood, with a mason's hammer or mallet, the joints being at

tiles will be brought to a perfectly even surface and thoroughly consolidated with the cement, which the beating down regularly distributes under them, counteracting any slight variations in their substances by depressing the thicker tiles, and floating upon the cement so displaced those that may be too low. The evenness of the surface should be occasionally tested with a mason's straight edge of sufficient length to bear on the guides. The workman will have to use his discretion in determining the portion of the pavement it will be most convenient to commence upon. In regularly formed spaces it will be best to lay a part of the general pattern across the whole width within the borders, in the centre of the pavement. This will enable the work to be symmetrically disposed; the borders may then be laid to it, after which the general pattern may be completed within the borders. Care should be taken that the work is placed centrally with the space, so as to have as wide a margin on one side as on the other. This can only be ensured by temporarily laying down a part of the pattern, and ascertaining the exact space the tiles occupy; the laying should then be proceeded with in every direction from the centre. The foundation should be kept thoroughly wet whilst the pavement is being laid. When the bedding is sufficiently hardened, mix some pure cement (without sand) with water to the consistency of cream, to run into the joints, taking care that what remains on the surface is wiped off before it When the tiles have to be cut, rule a line where the division is to be made, and rest the back of the tile on the sharp edge of a stone, immediately under the line, along which bruise the surface with a hard, sharp chisel; the parts will easily separate, after which chip the back edge even. It is recommended to remove the skirting boards from the walls whilst the pavement is being laid.' Directions are also given for laying the tile on spaces that are interrupted by a step. stone nosing, at least 3in. wide, should be provided for the tiles to finish against; a convenient arrangement is to have the whole riser of step composed of stone (see fig. 3); or a tile may be inserted in the face of the riser (see fig. 4). In addition to the foregoing practical advice, the book contains a plate of diagrams, "showing the market relation of the regions forms. ing the mutual relation of the various forms and sizes of tiles and tesseræ of which the accompanying designs are composed, for the assistance of architects and others who wish to arrange their own designs." As regards the arrangement of tile pavements, fashion will exert its influence as in other departments of art; it may, however, be taken as a tolerably safe rule that the smaller the tiles, or perhaps the larger the proportion of tesseræ the better will be the effect. White lines must be used with caution, and should always be unobtrusive. Blues and greens are to be sparingly employed, and the closer the designer confines himself to red, black, buff, and a faint sprink ling of white, the better will be the effect of his pavement. The Etruscan colours have never hitherto been found wanting, and that the potters of Etruria were tolerably good judges is an opinion that few will be found willing to assail even in these costermongering times, when "virtue is not regarded in handicraftsmen."

Messrs. Maw have, in the production of this book of patterns, conferred a boon on the art community. It is, we believe, the most elaborate. the most costly, and at the same time the most useful work of the kind ever produced. It shows not only the vast variety of tiles which are in use or may be used for a variety of purposes, but it indicates the great enterprise combined with art knowledge which the firm Our coloured engravings are facsimiles of those in the book, and are selected from several hundred other designs equally well executed. One of the pages has undergone no less than twelve printings, and our readers may judge of the careful, we may say exquisite, manner in which the Messrs. Leighton

do their work by observing the accuracy with which each colour is put on the paper. regard it as a triumph of steam printing.

THE NEW NATIONAL GALLERY.*

THAT the Government made a grievous error in Limiting the competition for the new National Gallery designs, however much it was doubted at the time, can surely not be doubtful now to anyone who examines the designs actually sent in. If we believed for a moment that the architectural talent of the country was even fairly represented in this exhibition, we should have little hope indeed for the future. We feel sure that most among the selected architects, if they had had the fear of known and unknown competitors to urge them on, could have done far better things than they have shown. At any rate, the only valid argument that was ever brought against an open competition, viz., that the best architects would not, under those circumstances, have competed at all, loses the whole of its strength in the face of the drawings exhibited in the Palace of Westminster; for, supposing that every one of the selected had refused to send in a design, we have not the smallest doubt that designs quite as good as any that we have from the favoured few would have been produced. We should have been much astonished if the present drawings had not been distanced altogether. But we do not for a moment believe that all, or even the majority, of those chosen, if, as was suggested, they had been paid for their designs, while the uninvited were allowed to compete at their own cost, would have refused the commission. We feel certain that all, or nearly all, who among these gentlemen possess any real artistic talent, would not have been deterred from a fair contest with their fellow workers. No doubt the absolute certainty of being entirely beaten in an open competition would have reduced the number of selected candidates, but no one would have objected to that. Those who did not retire through fear of being surpassed would have been put upon their mettle, and have done their best. This is far from being the case now -so far, in fact, that we should hope no one of the present designs would be executed. There has really been no competition at all. There are scarcely two designs in the same style, and so it really at present becomes a mere matter of style with the four or five decent designs. All

of these are, in fact, just such fair designs as to be slightly above mediocrity.

The failure has been due, in some respects no doubt, to the vagueness of the directions supplied to the architects, partly also to the many difficulties of the site, which requires for mixturescene. culties of the site, which requires for picturesque effect a building with features ill suited or useless to a National Gallery. This, it will be seen as we go on, is curiously exemplified in the treatment of the facades by nearly all the competitors, several of whom use it as an envelope for the actual gallery. There is one more point which has doubtless influenced some of the artichects, to the detriment of their plans, viz., the simultaneous competition for the Law Courts. This more important undertaking has probably diminished the interest taken in the other. gentlemen who were permitted to try for both of these great undertakings would, we think, have these great undertakings would, we think, have better consulted their own interest, and the good of their profession, if they had made their choice between the two, and devoted all their energies to the one subject. The same also, we think, applies even more to the gentleman who has sent in two designs in different styles for the National applies even more to the gentleman who has sent in two designs in different styles for the National Gallery. The time spent upon elaborating Mr. Somers Clarke's Italian design, a work of little value, would have been far better spent in im-proving and correcting his Venetian Gothic one, which has so many points of integers about the which has so many points of interest about it that we wish it had had more attention bestowed upon it. He would also surely have done more wisely if he had confined his plan to the strict requirements of the case instead of running up the sup-posed estimate to such an enormous sum, by providing for what was certainly not demanded of him, however desirable he or others might deem it. This architect would have shown greater it. This architect would have shown greater wisdom and very possibly have done much better if he had had more regard to proper economy. What, for example, is the value in any way of the great campanile at the east end, unless it is required for the purposes of the gal-

lery? As a mere ornament it is quite indefensilery? As a mere ornament it is quite indefensi-ble. The grouping of the centre is good; it has long been desired that the Gothic architects should give their attention to that most perfect of vaults, the dome. We think Mr. Clarke has succeeded in designing a very satisfactory one, though this also is a very expensive luxury, considering the little need for such a feature in a building for the exhibition of paintings. We by no means think that the Venetian style is at all fitted to our climate and the materials we use. Anyone must see at a glance that Mr. Clarke's design ought to be executed in marble. shallowness of the moulding and carving, and the general stiffness of outline usual in this style, owe their origin to the use of marble. The great central sculpture hall has many points of considerable beauty. Mr. Clarke gives no scale to his drawings, which is a great error.

Mr. Digby Wyatt deprecates any dealing with

the present building. He is sure that any altera-tion of it would be unsatisfactory, a source of discontent at the present time and regret for the future. In this we quite agree; and if anything more than another would suggest the unadvisableness of so doing, it would be his own idea of improvement. The gallery, as altered according to his plan, would contain all the vices of the present building, overlaid with a curious amount of absurd false ornament. As an instance of this we would cite his proposal of erecting a sort of caryatid temple with no earthly use over the pediment, and putting a sham arcade all round the top of the building, in the vain hope, we suppose, of giving it dignity. His designs for a new Gallery,—the drawings of which, by-the-bye, are beautifully executed,—though they show a good deal of cleverness, are far too meretricious for acceptance. They are quite overdone with ornament. The hanging of the pictures in the great hall appears even worse than in the present building; pictures of no great size placed right above the line of sight, and which one would have to get up a ladder to see. It may be advisable to have great halls of considerable height and breadth for the comfort of the public and the better lighting and ventilation of the galleries, but it will never do to have several rows of paintings, one on the top of the other, -an arrangement so fatal to the proper seeing of pictures.

Anything more outrageous than the front of this building we have never seen. The whole facade is pierced by gigantic, deeply recessed arches or alcoves with a figure cowering in the back of This absurd arrangement is really introduced to get a top light for the ground floor. The whole exterior grouping is very faulty and lopsided. We cannot imagine that it would look

well from any point.

The less said about Mr. Owen Jones' design the better. The Times was quite right when it doubted whether the old Gallery—a photograph of which on exactly the same scale and from the same point of view is placed alongside of the new design—suffered by the comparison. It would have been a fair composition for a Brobdignagian

hotel unlimited.

If we wanted an additional proof to the many already possess of the utter unfitness of the religious architecture of Greece for general modern purposes, we could scarcely have a better than that furnished in the poor design of Mr. Brodrick. The whole front is a sham,—a screen, in fact, hiding the real building. You cannot even see from the outside that there are two stories. It looks something like the Bank of England exaggerated with a Noah's ark stuck up a top. A more inartistic display of pillars, which are arranged as thick as blackberries above and below, we have never seen:—it is quite childish. And to match the absurdity of the rows of columns, we have in the same terri-ble profusion rows of figures stuck up like pretty maids all of a row. But perhaps the Noah's ark arrangement is the worst part of the whole, than which there is nothing much more lamentable in the whole series of drawings. This is in reality nothing more than a very oblate dome masked by this super-temple as it were with a much proby this super-temple as it were with a much pro-jecting portion up in the skies, where if the sun usually did shine too much for comfort in England, there would never be any one thing or being to be sheltered under it. This architect, in common with some others, has made a great mistake in so entirely covering the ground as to leave no room for light and ventilation. Messrs. Banks and Barry have sinned still more in the same way.

Something akin to Mr. Brodrick's design is one by Mr. James Murray, which, though giving one

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